	Application No.	Applicant(s)
Notice of Allowability	10/535,166	HEUER ET AL.
	Examiner	Art Unit	
	Christopher P. Nofal	2109	

*-- The **MAILING DATE** of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Applicant's ammendment filed on 8/24/2007 and 8/31/2007 (fax)*.

2. ☒ The allowed claim(s) is/are *20-33 (renumbered 1-13)*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the

         International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

Jeah M. Cornelius
Primary Examiner
Art Unit 2162
Date 9-11-07

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312.

To ensure consideration of such an amendment, it MUST be submitted no later than the payment of

the issue fee.

Authorization for this examiner's amendment was given via facsimile and in a telephone

interview with Peter Zura, Applicant's Representative, on 8/31/2007 and 9/10/2007.

The Specification has been amended as follows:

Insert the title "Field of Technology" above paragraph [0001].

The Title of the Invention as been amended as follows:

Generating a Bit Stream from an Indexing Tree

The claims have been amended as follows:

Claim 21 (Currently amended) A computer-implemented method for generating a bit stream

comprising:

providing an indexing tree including a plurality of hierarchy levels, wherein each hierarchy

level is assigned one or more index nodes, and wherein the index nodes contain index data that is

sorted in the indexing tree according to one or more predetermined criteria;

designating an index node as a parent node;

designating other index nodes as child nodes, wherein at least one child node branches from

the parent node and wherein the at least one child node is located in a lower hierarchy level;

inserting <u>and sorting</u> index data of the index nodes into the bit stream, <u>wherein</u> following insertion of the index data of the parent node, the index data of the <u>at least one</u> childe node <u>is offset by one node following</u> the parent node in the indexing tree on account of the sorting <u>and</u> is inserted without information indicating at which position the index data of said <u>at least one</u> child node is located in the bit stream; and

inserting information into the bit stream in each case for the a child node that <u>is not offset by the one node following</u> the parent node, said information indicating at which position in the bit stream the index data of said child node is located.

Claim 31 (Currently amended) The method according to claim 25, wherein the paths comprise description elements of an <u>XML (Extensible Markup Language)</u> document.

Allowable Subject Matter

Claims 21 – 33 (renumbered claims 1 –13) are allowed over the cited prior art.

The following is an examiner's statement of reasons for allowance: the cited prior art taken alone or in combination fails to teach in combination with the other claim limitations the features of inserting and sorting index data of the index nodes into the bit stream, wherein following insertion of the index data of the parent node, the index data of the at least one childe node is offset by one node following the parent node in the indexing tree on account of the sorting and is inserted without information indicating at which position the index data of said child node is located in the bit stream; and inserting information into the bit stream in each case for the a child node that is not

offset by the one node following the parent node, said information indicating at which position in the bit stream the index data of said child node is located, as recited in independent claim 21.

Furthermore, as per definition of the contents of the generated bit stream as per the Applicant's Specification on page 11, the information consisting in each node in the generated bit stream is limited in scope to a number of entries, for each entry a key, a number of instantiations; for each instantiation, a value instance and a position; and for each child node except the first, an offset in the stream. This specificity with regards to the information per node in the bit stream further limits the scope of independent claim 21.

The closest prior art of record teaches various aspects of the Applicant's invention:

Chan et al. (US 2004/0010752) teaches a tree builder application and a tree prober that employs XPATH expression tress to probe the document data tree and obtain matches with the substrings.

Devillers (US 2003/0177341) teaches generating a bit stream from a document representing the bit stream from a tree-like representation.

Johnson, Jr. (US 5,557,786) teaches storing key-indexed entries in trees and balancing trees.

Fisher (US 2004/0032422) teaches a reverse traversal of an index tree.

Walker et al. (US 2003/0028557) teaches coding index data by means of an MPEG coding method.

However, neither **Chan et al., Devillers, Johnson, Jr., Fisher,** nor **Walker et al.** teach in combination with the other recited limitations of claim 21 the features of inserting and sorting index data of the index nodes into the bit stream, wherein following insertion of the index data of the parent node, the index data of the at least one childe node is offset by one node following the parent node in the indexing tree on account of the sorting and is inserted without information indicating at

which position the index data of said child node is located in the bit stream; and inserting

information into the bit stream in each case for the a child node that is not offset by the one node

following the parent node, said information indicating at which position in the bit stream the index

data of said child node is located; and the definition of the generated bit stream as recited in claim 21

further narrowed by the Applicant's Specification (page 11: Table) that recites the information

consisting in each node in the generated bit stream is limited in scope to a number of entries, for

each entry a key, a number of instantiations; for each instantiation, a value instance and a position;

and for each child node except the first, an offset in the stream.

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee.

Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
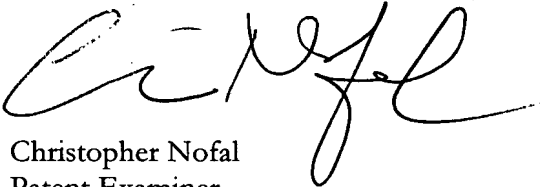

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Christopher P. Nofal whose telephone number is (571) 270-3161. The

examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Chameli Das can be reached on (571) 272-3696. The fax phone number for the organization where

this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system,

see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system,

contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like

assistance from a USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher Nofal
Patent Examiner

JEAN M. CORRIELUS
PRIMARY EXAMINER
Art Unit 2162
Date: 9/13/07